



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW2037 BYPASS RATIO: 5.7
 UNIQUE ID NUMBER: 4PW072 PRESSURE RATIO (π_{co}): 26.7
 COMBUSTOR:
 ENGINE TYPE: TF RATED THRUST (F_{oo}) (kN): 166.4

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F _{oo} (g/kN) or SN	3.6	38.3	53.7	12.3
AS % OF ORIGINAL LIMIT	18.4	32.5	57.5	59.7
AS % OF CAEP/2 LIMIT (NO _x)			71.9	
AS % OF CAEP/4 LIMIT (NO _x)			87.0	
AS % OF CAEP/6 LIMIT (NO _x)			98.9	
AS % OF CAEP/8 LIMIT (NO _x)			118.1	

DATA STATUS

- PRE-REGULATION
 - CERTIFICATION
 x REVISED (SEE REMARKS)

TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES
 - DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 x OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F _{oo})	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	1.571	0.02	0.33	29.41	6.0
CLIMB OUT	85	2.2	1.307	0.02	0.34	23.96	10.5
APPROACH	30	4.0	0.458	0.11	1.95	9.77	3.0
IDLE	7	26.0	0.152	1.92	22.36	4.10	1.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			586	472	5597	8120	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				4	4	4	4
AVERAGE D _p /F _{oo} (g/kN) or AVERAGE SN (MAX)				2.8	33.6	48.8	10.5
SIGMA (D _p /F _{oo} in g/kN, or SN)							
RANGE (D _p /F _{oo} in g/kN, or SN)							

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	100.6-100.9
TEMPERATURE (K)	283.4-298.2
ABS HUMIDITY (kg/kg)	0.007-0.008

FUEL

SPEC	Jet A
H/C	
AROM (%)	

MANUFACTURER: Pratt & Whitney
 TEST ORGANIZATION: P&WA
 TEST LOCATION: East Hartford, CT
 TEST DATES: 08/08/1983-20/11/1998

REMARKS

1. Revision to add second engine test.

Compliance with Fuel Venting requirements: - ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)